

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A single layer anti-reflective hard-coat.
2. (original) A single layer anti-reflective hard-coat according to claim 1 that comprises a structured surface, preferably a nano-structured surface.
3. (currently amended) A hard-coat according to claim 1 ~~or 2~~, comprising a material with a hardness above 0.5 GPa, preferably above 0.7 GPa and most preferably above 1.0 GPa as measured by nano-indentation.
4. (currently amended) A hard-coat according to ~~claims 1 to 3~~ claim 1 comprising a material with a reduced tensile modulus above 3 GPa, preferably above 8.5 GPa or 20 GPa, most preferably above 40 GPa as measured by nano-indentation.
5. (currently amended) A hard-coat according to ~~claims 1 to 4~~ claim 1 comprising a material with a scratch resistance above $5 \text{ mJ } \mu\text{m}^{-3}$, preferably above 15 or $30 \text{ mJ } \mu\text{m}^{-3}$, preferably above $60 \text{ mJ } \mu\text{m}^{-3}$ as measured by nano-indentation.
6. (currently amended) A hard-coat according to ~~claims 1 to 5~~ claim 1 containing an amount of inorganic nano-particles from 5 to 75 weight %, preferably from 15 to 50 weight %.
7. (original) A single layer hard-coat wherein the hard-coat exhibits a refractive index gradient normal to the substrate that decreases from that of the material of the hard-coat to that of air over a spatial length scale.
8. (original) A single layer hard-coat according to claim 7 wherein the spatial length scale of the refractive index gradient is between 10 and 1000 nm.
9. (original) A single layer hard-coat according to claim 8 wherein the spatial length scale of the refractive index gradient is between 100 and 200 nm.

10. (currently amended) A single layer hard-coat according to ~~any preceding claim~~ claim 1 wherein the critical wave vector of the radial fourier density transformation for an uncorrelated density distribution is below $2\pi / 600\text{ nm}$.

11. (original) A single layer hard-coat according to claim 10 wherein the critical wave vector of the radial fourier density transformation for an uncorrelated density distribution is below $2\pi / 400\text{ nm}$.

12. (currently amended) A single layer hard-coat according to ~~any preceding claim~~ claim 1 wherein the hard-coat increases the optical transmission of a substrate in at least a range of wavelengths of the electromagnetic spectrum.

13. (original) A process for preparing a single layer hard-coat, comprising the steps of

- a) applying a mixture on a substrate, which mixture comprises
 - i. at least a first material which does not crosslink under the conditions chosen in step b)
 - ii. at least a second material which does crosslink under the conditions chosen in step b)
 - iii. nano-particles, and
 - iv. optionally at least one solvent
- b) inducing crosslinking in the mixture applied to the substrate, subsequently removing at least part of the first material.

14. (original) A process according to claim 13 wherein the mixture is homogenous prior to crosslinking

15. (currently amended) A process according to ~~claims 13 or 14~~ claim 13 wherein at least part of the nano-particles have organic groups on their surface.

16. (currently amended) A process according to ~~claims 13 to 15~~ claim 13, wherein the nano-particles are inorganic nano-particles.

17. (currently amended) A process according to ~~any one of claims 13-16~~ claim 13, wherein the monomer or oligomer present in the second material has at least two and preferably three or more reactive / polymerizable or crosslinkable groups per monomer or oligomer molecule

18. (currently amended) A process according to claim 13 ~~to 17~~ wherein the majority of the nano-particles have a diameter of less than 400 nm and preferably less than 50 nm.

19. (currently amended) A hard-coat obtainable by the process according to ~~any one of claims 13 to 18~~ claim 13.

20. (currently amended) Shaped articles comprising a hard-coat according to ~~claims 1 to 12 or claim 19~~ claim 1.